

1/32 A. X. WIDMER YOR920030040US1 (RMT)

FIG. 1A

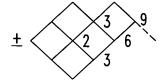


FIG. 1B

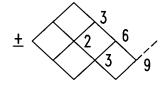




FIG. 3

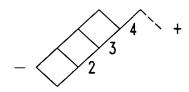
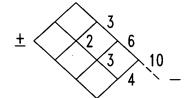


FIG. 4





				ı i			I	
NAME	ABCDE K	INVERTED BITS	PRIMARY abcde i	ALTERNATE abcde i	DR CLASS	DR	DB CLASS	DB
D0	000000	ADI	100101			±	C'-D'-E'-K'	0
D1	10000 0	CI	10 <u>1</u> 00 <u>1</u>			±	C'-D'-E'-K'	0
D2 <sup>2</sup>	01000 0	El	0100 <u>11</u>			±	C'-D'-E'-K'	0
D3	11000 0	1	11000 <u>1</u>			±	C+D+E+K'	0
D4	00100 0	BI	0 <u>1</u> 100 <u>1</u>			±	ZB6	0
D5	10100 0		101000	010111	PDRS6	+		
D6	01100 0		011000	100111	PDRS6	+		-
D7	11100 0		111000	000111	NDRS6	-	ZB6	0
D8	000100	BI	010101			±	XB6	0
D9	10010 0	-	100100	011011	PDRS6	+	-, <u>-</u>	-
D10	010100		010100	101011	PDRS6	+		-
D11	110100		110100			±	XB6	0
D12	001100		001100	110011	PDRS6	+		
D13 <sup>1</sup>	101100		101100			±	XB6	0
D14 <sup>1</sup>	011100		011100			±	XB6	0
D15	111100	ABI	<b>00</b> 110 <u>1</u>			±	ZB6	0
D16 <sup>2</sup>	000010	Al	<b>1</b> 0001 <b>1</b>			±	XB6	0
D17	100010		100010	011101	PDRS6	+		-
D18	010010		010010	101101	PDRS6	+		-
D19	11001 0		110010			±	XB6	0
D20	00101 0		001010	110101	PDRS6	+		-
D21	10101 0		101010			±	XB6	0
D22	01101 0		011010			±	XB6	0
D/K23	11101 x		111010	000101	NDRS6	_		+
D24	00011 0		000110	111001	PDRS6	+		-
D25	10011 0		100110			±	YB6	0
D26	01011 0		010110			±	YB6	0
D/K27	11011 x		110110	001001	NDRS6	-		+
D28	00111 0		001110			±	YB6	0
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	-		+
D31	111110	ABDI	001011			±	YB6	0
K3	11000 1		110000	001111	PDRS6	+		-

- 1. S1 = 1 FOR PDFS6·C·D·E·(A≠B)
  2. S2 = 1 FOR NDFS6·A··C··D··(B≠E)



NAME	FGH K	CODING CLASS	PRIMARY fghj	ALTERNATE fghj	DR CLASS	DR	DB CLASS	DB
Dx.0	000 0	F'-G'-H', G'-H'	0 <u>1</u> 0 <u>1</u>			±	G'•H'	0
K3.0	000 1	F'-G'-H', G'-H'	0 <u>1</u> 0 <u>1</u>	1010	K·(F·G)'	+	G'•H'	0
Dx.1	100 0	G'·H'	100 <u>1</u>			±	G'₊H'	0
K3.1	100 1	G'-H'	100 <u>1</u>	0110	K-(F-G)'	+	G'•H'	0
Dx/K3.2	010 x		0100	1011	F'-(G#H)	+		
Dx/K3.3	110 x		1100	0011	F•G	-	F•(G≠H)	0
Dx/K3.4	001 x		0010	1101	F'-(G≠H)	+		
Dx.5	101 0		1010			±	F•(G≠H)	0
K3.5	101 1		1010	0101	K•(F•G)'	+	F•(G≠H)	0
Dx.6	011 0		0110			±	F'-G-H	0
K3.6	011 1	-	0110	1001	K•(F•G)'	+	F'·G·H	0
Dx/K3.P7	111 x		1110	0001	F•G	-		
Dx.A7 <sup>1</sup>	111 0	F-G-H-S	<u>0</u> 11 <u>1</u>	1000	F•G	-		
Ky.A7 <sup>2</sup>	111 1	F-G-H-Ky	<u>0</u> 11 <u>1</u>	1000	F•G	-		

- 1. S1 = 1 FOR PDFS6-C-D-E'-(A $\neq$ B) + NDFS6-A'-C'-D'-(B $\neq$ E) 2. Ky IS RESTRICTED TO K23, K27, K29, K30 = K-E

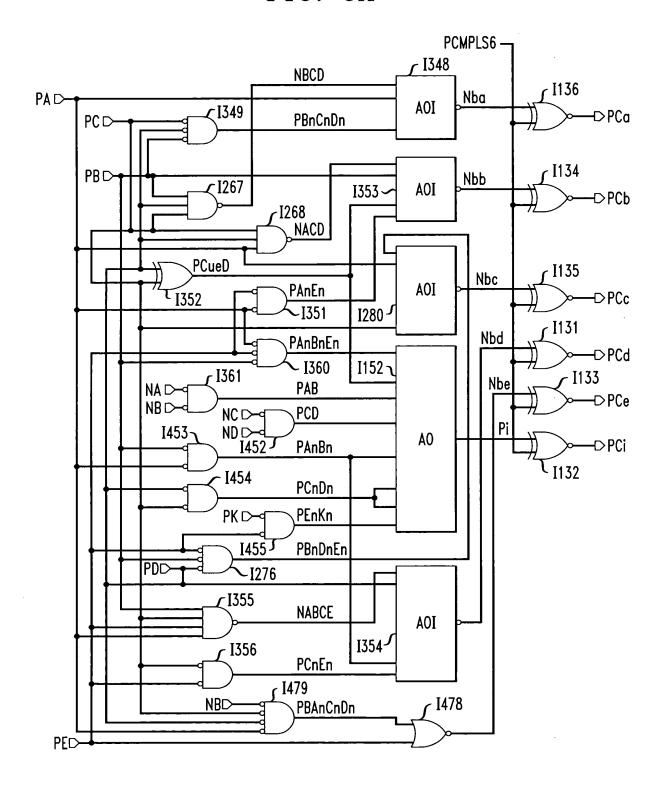


NAME	ADODE FOLLY	PRIMARY (6B)	ALTERNATE		
NAME	ABCDE FGH K	DR abcdei fghi DB	DR abcdei fghi DB		
K3.0	11000 000 1	+ 110000 1010 -	- 001111 0101 +		
K3.1	11000 100 1	+ <b>110000 0</b> 110 -	- <b>001111 1</b> 001 +		
K3.2	11000 010 1	+ 110000 1011 0	- 001111 0100 0		
K3.3	11000 110 1	+ 110000 1100 -	- 001111 0011 +		
K3.4	11000 001 1	+ 110000 1101 0	- 001111 0010 0		
K3.5	11000 101 1	+ <b>110000 0</b> 101 -	- <b>001111 1</b> 010 +		
K3.6	11000 011 1	+ 110000 1001 -	- 001111 0110 +		
K3.7	11000 111 1	+ 110000 1110 0	- 001111 0001 0		
K23.7	11101 111 1	- 111010 1000 0	+ 000101 0111 0		
K27.7	11011 111 1	- 110110 1000 0	+ 001001 0111 0		
K29.7	10111 111 1	- 101110 1000 0	+ 010001 0111 0		
K30.7	01111 111 1	- 011110 1000 0	+ 100001 0111 0		

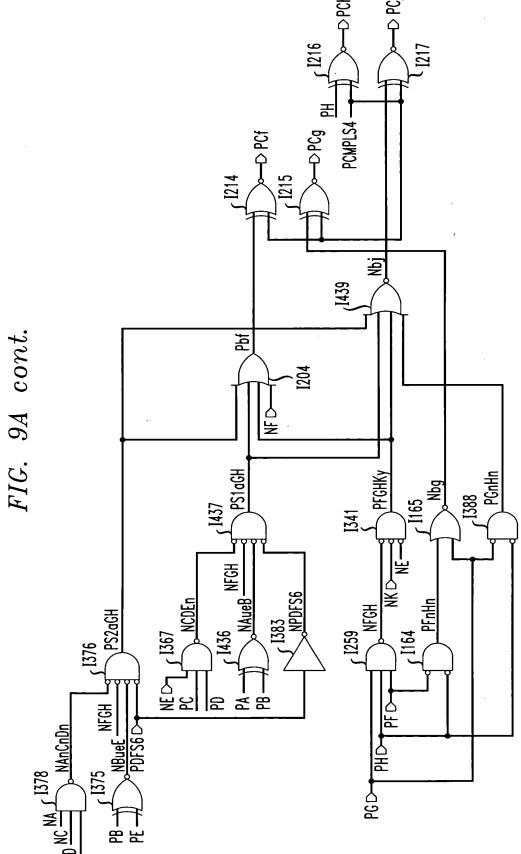
NAME	ABCDE FGH K	PRIMARY (6B) DR abcdei fghi DB	ALTERNATE DR abcdei fghi DB
K11.7	11010 111 1	+ 110100 1000 -	- 001011 0111 +
K13.7	10110 111 1	+ 101100 1000 -	- 010011 0111 +
K14.7	01110 111 1	+ 011100 1000 -	- 100011 0111 +
K19.7	11001 111 1	+ 110010 1000 -	- 001101 0111 +
K21.7	10101 111 1	+ 101010 1000 -	- 010101 0111 +
K22.7	01101 111 1	+ 011010 1000 -	- 100101 0111 +
K25.7	10011 111 1	+ 100110 1000 -	- 011001 0111 +
K26.7	01011 111 1	+ 010110 1000 -	- 101001 0111 +
K28.7	00111 111 1	+ 001110 1000 -	+ 110001 0111 +



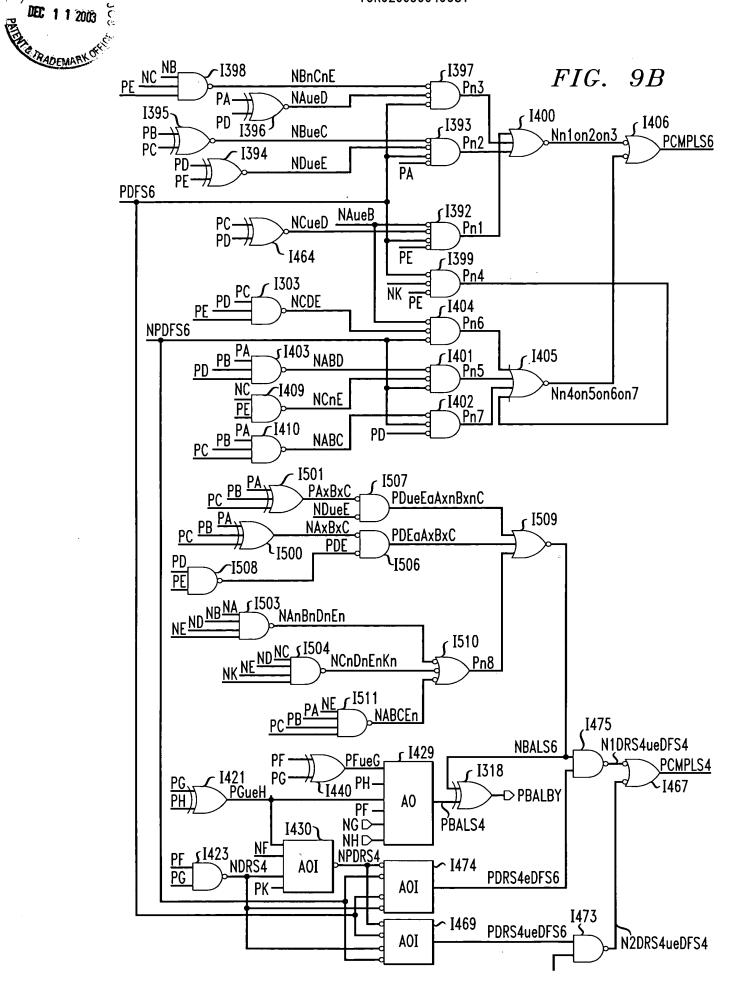
FIG. 9A







DIAR





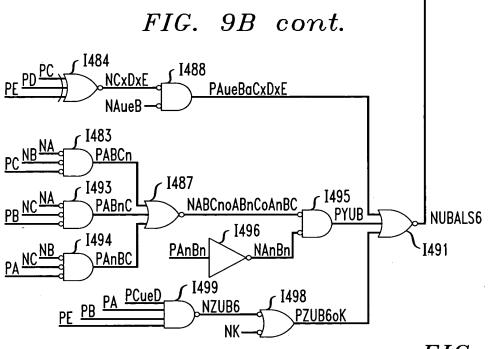


FIG. 9C

Pn1 = NDFS6aEnAueBaCueD Pn2 = NDFS6aAnBueCaDueE

Pn3 = NDFS6aBnaCnaEaAueD

Pn4 = NDFS6aKaEn

Pn5 = PDFS6aAaBaCnaDaE Pn6 = PDFS6aCaDaEaAueB

Pn7 = PDFS6aAaBaCaDn

FIG. 9B

FIG. 9B cont.



FIG. 10

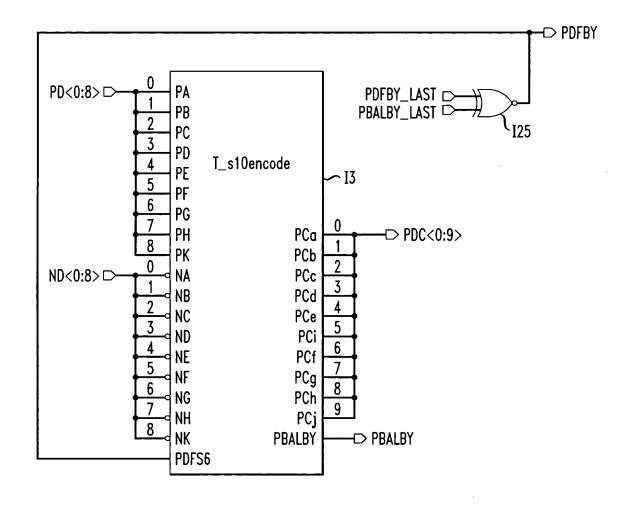
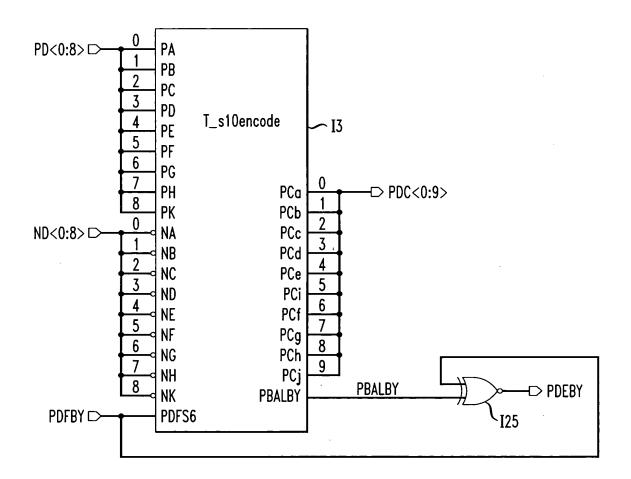
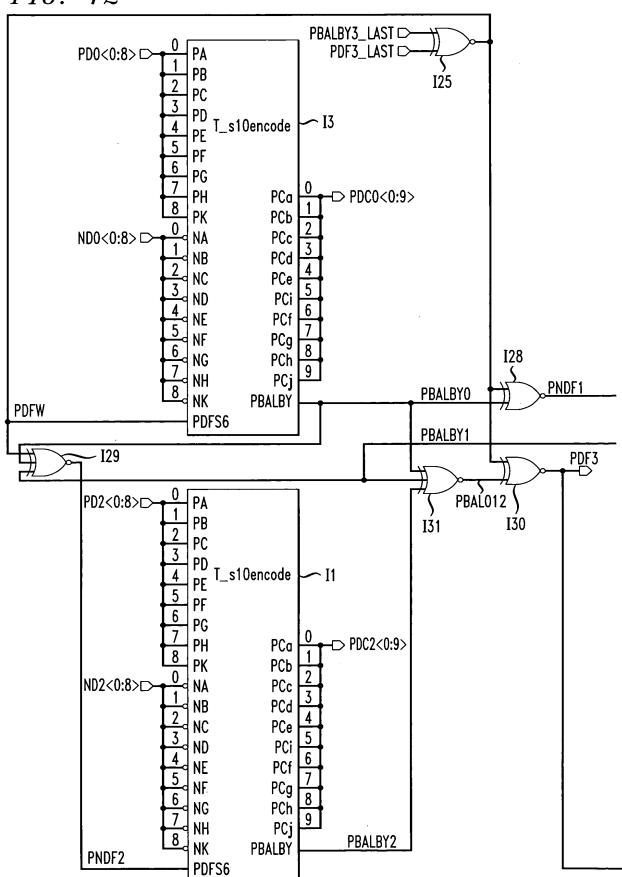


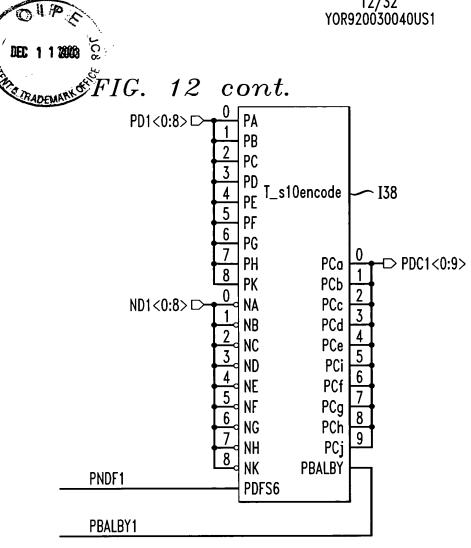


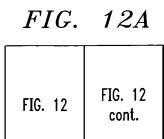
FIG. 11

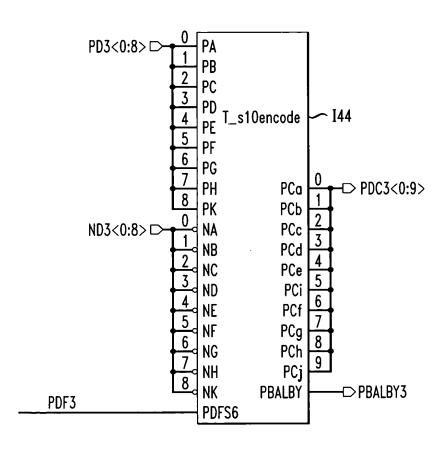




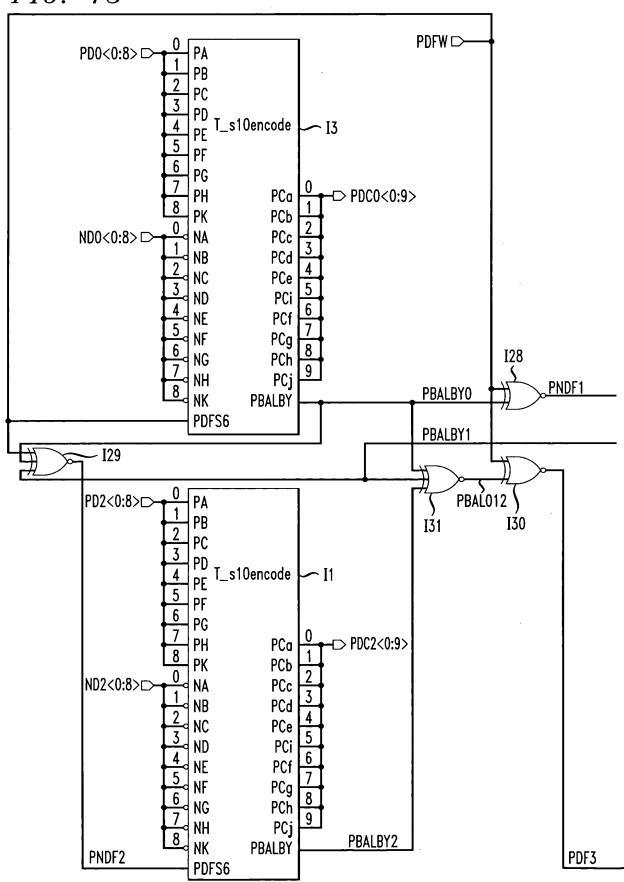












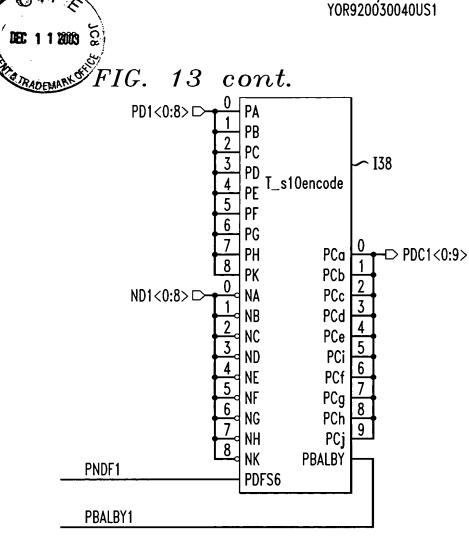
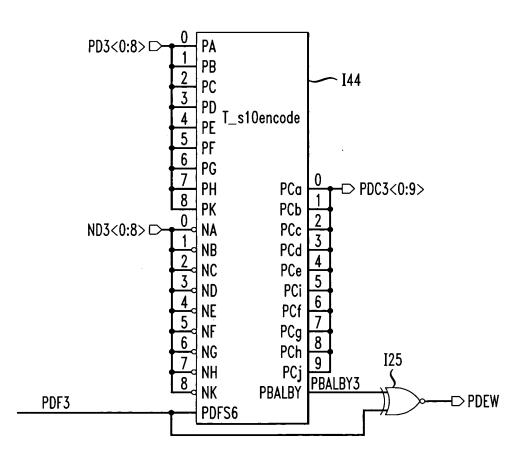


FIG. 13A

FIG. 13	FIG. 13 cont.
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NAME	abcdei	DECODING CLASS	ABCDE K	DR CLASS	DR	DU CLASS	DU
D0P	100101	b'-i-(a≠c)-(d≠e)	<b>0</b> 0000 0	-	±		
D0P	100101	b'-i-(a-c'-d-e')	000 <b>0</b> 0 0		±		
D1	101001	a•b'•c•d'•e'•i	10 <b>0</b> 00 0		±		
D2	010011	a'-b-c'-d'-e-i	0100 <b>0</b> 0		±		
D3	110001		11000 0		±		
D4	011001	a'-b-e'-i-(c≠d)	0 <u>0</u> 100 0		±		
D5P	101000		10100 0	PDRR6	+	NDUR6	-
D5A	010111	d-e-i	<b>10100</b> 0	NDRR6	-	PDUR6	+
D6P	011000	· · ·	01100 0	PDRR6	+	NDUR6	-
D6A	100111	d-e-i	<b>01100</b> 0	NDRR6	-	PDUR6	+
D7P	111000		11100 0	NDRR6	-	NDUR6	-
D7A	000111	d•e•i	<b>11100</b> 0	PDRR6	+	PDUR6	+
D8	010101	a'•b•e'•i•(c≠d)	0 <b>0</b> 010 0		±		
D9P	100100		10010 0	PDRR6	+	NDUR6	-
D9A	011011	c-i-(a+b)-(d+e)	<b>10010</b> 0	NDRR6	-	PDUR6	+
D10P	010100	, , , , , , , , , , , , , , , , , , , ,	01010 0	PDRR6	+	NDUR6	-
D10A	101011	c-i-(a+b)-(d+e)	<b>01010</b> 0	NDRR6	-	PDUR6	+
D11	110100		11010 0		±		
D12P	001100		001100	PDRR6	+	NDUR6	-
D12A	110011	a-b-i-(c+d+e)	<b>00110</b> 0	NDRR6	-	PDUR6	+
D13	101100	,	10110 0		±		
D14	011100		011100		±		
D15P	001101	b'•i•(a≠c)•(d≠e)	<b>1</b> 11100		±		
D15P	001101	a'•b'•c•i•(d≠e)	1 <b>1</b> 1100		±		
D16	100011	b'-i-(a≠c)-(d≠e)	<b>0</b> 0001 0		±		
D17P	100010		10001 0	PDRR6	+	NDUR6	-
D17A	011101	c-i-(a+b)-(d+e)	<b>10001</b> 0	NDRR6	-	PDUR6	+
D18P	010010		01001 0	PDRR6	+	NDUR6	-
D18A	101101	c-i-(a+b)-(d+e)	<b>01001</b> 0	NDRR6	-	PDUR6	+
D19	110010	, , , ,	11001 0		±		
D20P	001010		00101 0	PDRR6	+	NDUR6	-
D20A	110101	a-b-i-(c+d+e)	<b>00101</b> 0	NDRR6	-	PDUR6	+
D21	101010		10101 0		±		



## FIG. 14 cont.

	l 1	l		1	ı	1	i
I	! 					' 	! 
D22	011010		01101 0		±		
D/K23P	111010		11101 x	NDRR6	-	PDUR6	+
D/K23A	000101	a'-b'-e'-(c'+d')	<u>11101</u> x	PDRR6	+	NDUR6	-
D24P	000110		00011 0	PDRR6	+	NDUR6	-
D24A	111001	a·b·i·(c+d+e)	00011 0	NDRR6	-	PDUR6	+
D25	100110		10011 0		±		
D26	010110		01011 0		±		
D/K27P	110110		11011 x	NDRR6	-	PDUR6	+
D/K27A	001001	a'-b'-e'-(c'+d')	<u>11011</u> x	PDRR6	+	NDUR6	-
D28	001110		00111 0		±		
D/K29P	101110		10111 x	NDRR6	-	PDUR6	+
D/K29A	010001	c'-d'-e'-(a'+b')	<u>10111</u> x	PDRR6	+	NDUR6	-
D/K30P	011110		01111 x	NDRR6	-	PDUR6	+
D/K30A	100001	c'-d'-e'-(a'+b')	<u>01111</u> x	PDRR6	+	NDUR6	-
D31P	001011	b'-i-(a≠c)-(d≠e)	<u>1</u> 11111 0		±		
D31P	001011	a'-b'-c-i-(d≠e)	1 <u>1</u> 111 0		±		
D31P	001011	b'-i-(a'-c-d'-e)	111 <u>1</u> 1 0		±		
K3P	110000	c'-d'-e'-i'	11000 <u>1</u>	PDRR6	+	NDUR6	-
K3A	001111	d-e-i	<u>11000 1</u>	NDRR6	-	PDUR6	+

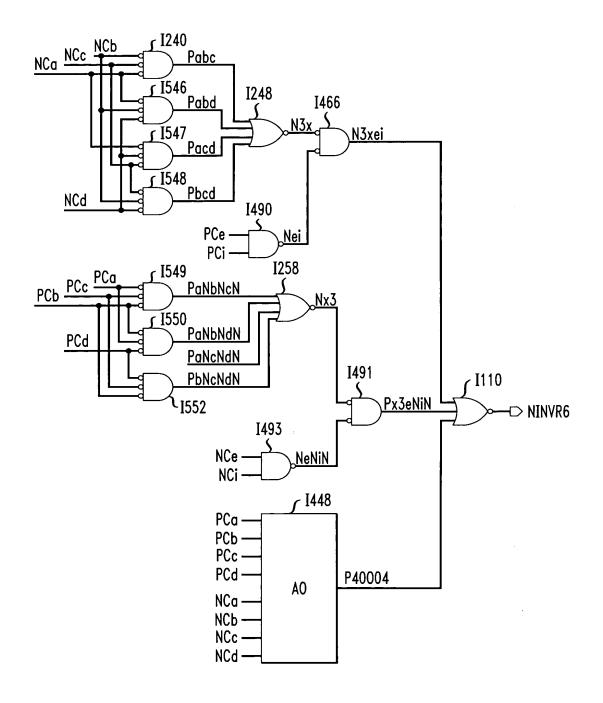
FIG. 14A

FIG. 14
FIG. 14
cont.

A III 18/32 YOR920030040US1 DEC 1 1 2003 **I523** PCd NCb NCa FIG. 15B 1526 Pn19 1524 I515 NaNbNd n21 آ52<u>آ ک</u> -DNDUR6 PCc NeN0iN NCe-NCi I521 I <u>\NdNeNiN</u> **I525** NCi NCe Pn20 Nabc NCa-NCb-· I495 NCa-Α0 NCc-**I497** NCb-<u>Pn9</u> NCc · <u>n</u>11 NCd-Pn10 NCe-NCd-Α0 NCi -~ I496 NCe-**I502** NCi -**I500 I300** I153 √ I499 <u>Nabc</u> PCi PCe PCd PDRR6 n12 **PDRaNF PdNeNiN** NDVBY NaNbNcN ~I302 Pn17 NPDFBY□ NDRR4□ PCa--I301 PCb-· I504 PNDRR6 **PNDRaPF** PCa-Α0 PCc-Pn18 PCb-**I508** NDFBY □ NPDRR4□ Pn13 PCc €1303 n16 PCd-Pn14 PCe-PCd-Α0 PČi -~ I503 PCe -PCi -**I507 I506** ( I505 <u>NaNbNcN</u> NCi NCe NCd n15 **I516** Pdei Nabc **I532** c I553 PCc PCb PCa Nabc Pn22 **PCd** n24 **I531** <u>PCe</u> - I530 Ne0i <u>PCi</u> **I535 I554** NCc NCb NCa NaNbNcN Pn23 I560 Ndei PCi PCe PCd



FIG. 15B cont.

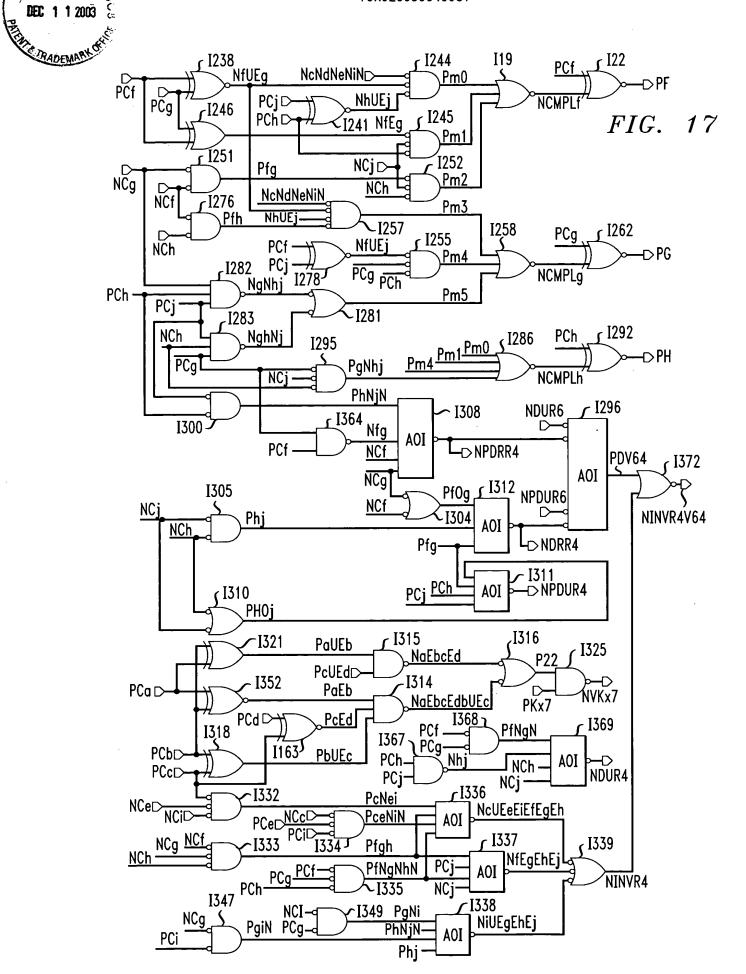




NAME	fghj	DECODING CLASS	FGH K <sup>a</sup>	DR CLASS	DR	DU CLASS	DU
				DIT OF 100	DIX	DO 01100	
Dx/K3.0P	0101	m5	0 <b>0</b> 0 x		±		
K3.0A	<b>1</b> 010	m0	<u>0</u> 0 <u>0</u> 1				
Dx/K3.1P	1001		100 x		±		
K3.1A	0110	m0, m0-(f-h)', m0	<u>100</u> 1				
Dx/K3.2P	0100		010 x	PDR4	+		-
Dx/K3.2A	1011	m2, m5, g'•h•j	<u>010</u> x	NDR4	-	_	+
Dx/K3.3P	<b>1</b> 100		110 x	NDR4	-		-
Dx/K3.3A	00 <b>1</b> 1	m2, m5, g'-h-j	<u>110</u> x	PDR4	+		+
Dx/K3.4P	0010		001 x	PDR4	+		-
Dx/K3.4A	1101	m1, m5, m1 + m4	<u>001</u> x	NDR4	•		+
Dx/K3.5P	10 <b>1</b> 0		101 x		±		
K3.5A	0101	m0, m0·(f·h)', m0	<u>101</u> 1				
Dx/K3.6P	0110		011 x		±		
K3.6A	1001	m0, m0-(f-h)', m0	<u>011</u> 1				
Dx/K3.7P	1110		111 x	NDR4	-		+
Dx/K3.7A	0001	m1, m4, m1 + m4	<u>111</u> x	PDR4	+		-
Dx/Ky.7P	01 <u>1</u> 1	m2	<u>1</u> 11 x	NDR4	-		+
Dx/Ky.7A	1000	m4, m1 + m4	1 <u>11</u> x	PDR4	+		-

a-Ky.7 =  $(e \neq i) \cdot (i = g = h = j)$ 

OIPE



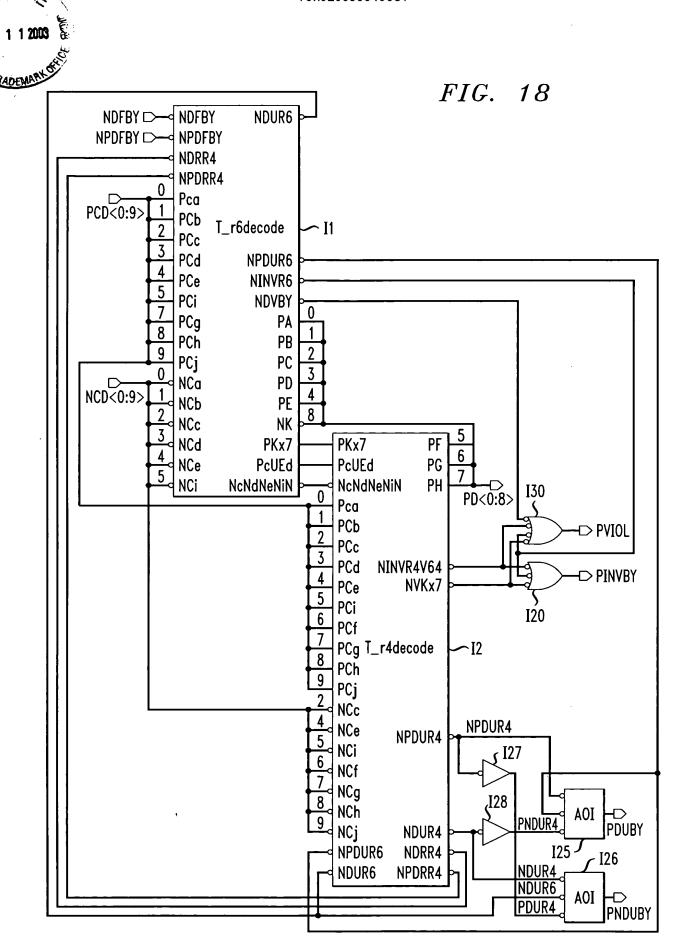




FIG. 19

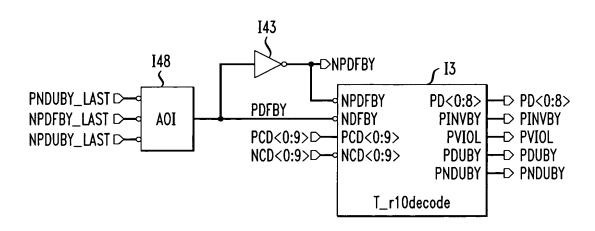
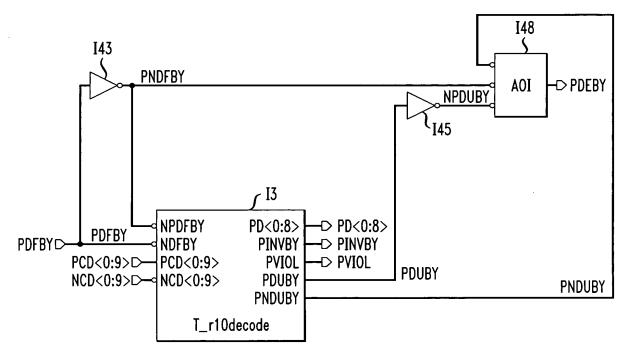


FIG. 20





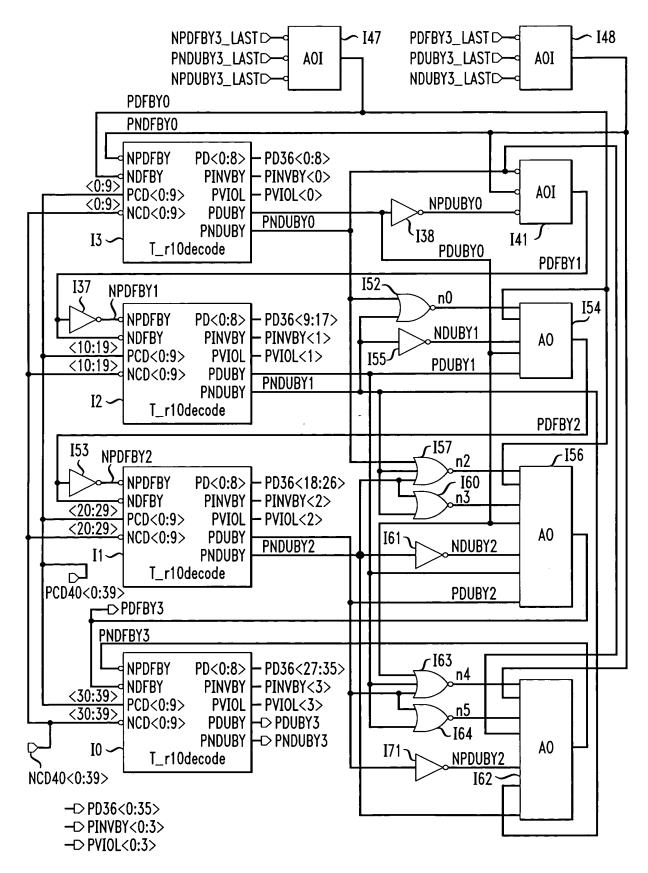
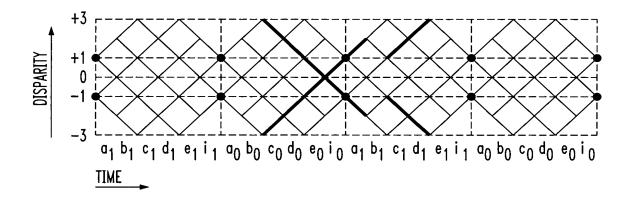




FIG. 22





		•						
NAME	ABCDE K	INVERTED BITS	PRIMARY abcdei	ALTERNATE abcdei	DR CLASS	DR	DB CLASS	DB
K0	00000 1	ADI	100101	011010	NDRS6	-	(A-B)'-C'-D'-E'	0
K1	10000 1	CI	101001	010110	NDRS6	-	(A-B)'-C'-D'-E'	0
K2	01000 1	El	010011	101100	NDRS6	-	(A·B)'•C'•D'•E'	0
K3	11000 1		110000	001111	PDRS6	+		-
K4	00100 1	BI	011001	100110	NDRS6	-	ZB6	0
D/K5	10100 x		101000	010111	PDRS6	+		-
D/K6	01100 x		011000	100111	PDRS6	+		-
D/K7	11100 x		111000	000111	NDRS6	-	ZB6	0
K8	00010 1	BI	010101	101010	NDRS6	-	XB6	0
D/K9	10010 x		100100	011011	PDRS6	+		-
D/K10	01010 x		010100	101011	PDRS6	+		-
K11	11010 1		110100	001011	NDRS6	-	XB6	0
D/K12	00110 x		001100	110011	PDRS6	+		-
K13	10110 1		101100	010011	NDRS6	-	XB6	. 0
K14	01110 1		011100	100011	NDRS6	-	XB6	0
K15	11110 1		111100	000011	NDRS6	-		+
K16	000011	Al	100011	011100	NDRS6	-	XB6	0
D/K17	10001 x	_	100010	011101	PDRS6	+		-
D/K18	01001 x		010010	101101	PDRS6	+		-
K19	11001 1		110010	001101	NDRS6	-	XB6	0
D/K20	00101 x		001010	110101	PDRS6	+		-
K21	10101 1		101010	010101	NDRS6	-	XB6	0
K22	01101 1		011010	100101	NDRS6	-	XB6	0
D/K23	11101 x		111010	000101	NDRS6	-		+
D/K24	00011 x		000110	111001	PDRS6	+		-
K25	10011 1	-	100110	011001	NDRS6	-	YB6	0
K26	01011 1		010110	101001	NDRS6	-	YB6	0
D/K27	11011 x		110110	001001	NDRS6	-		+
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	-	- :	+

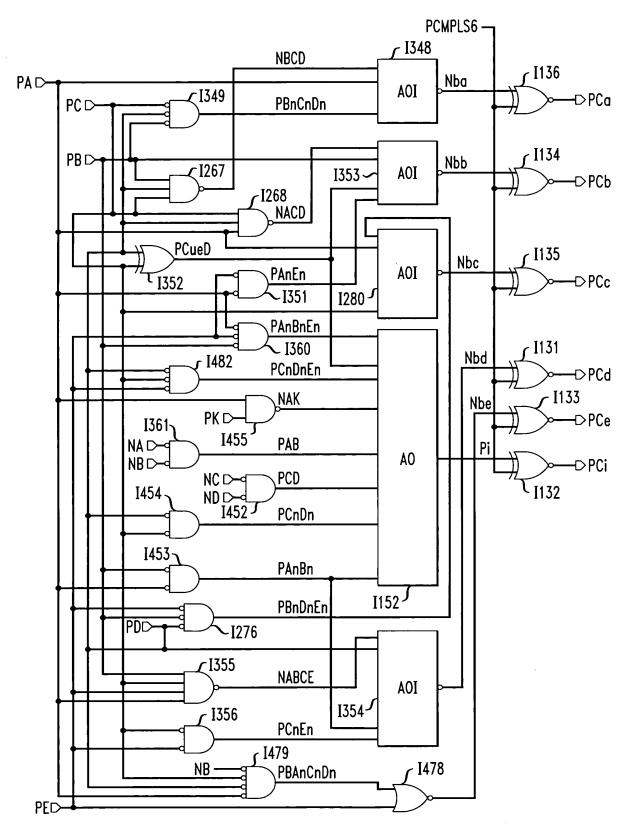


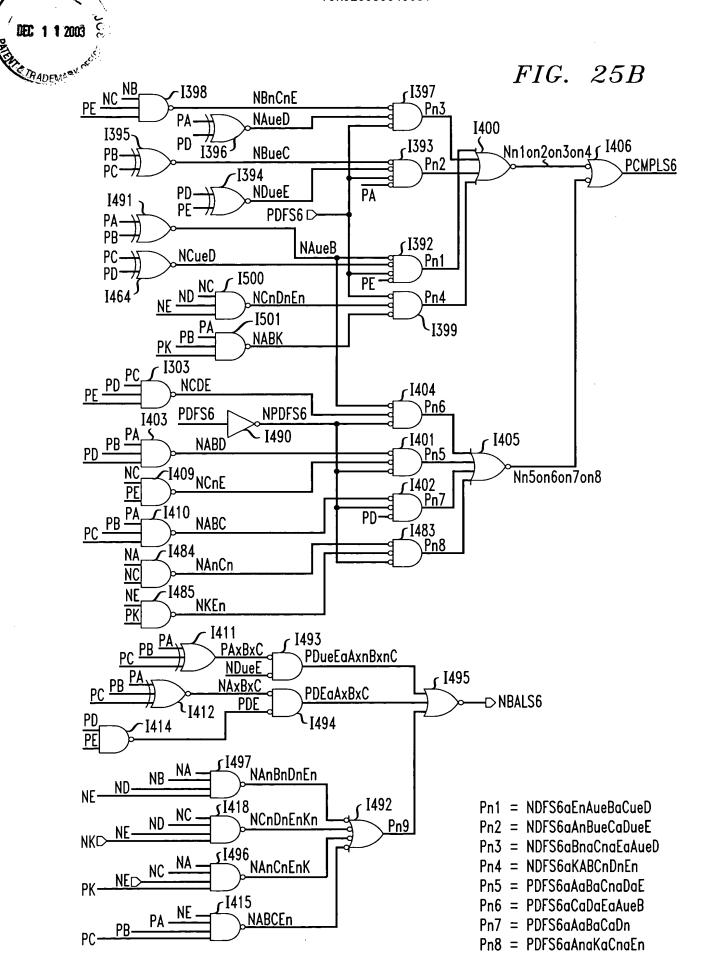
FIG. 24

NAME	ABCDE K	INVERTED BITS	PRIMARY abcdei	ALTERNATE abcdei	DR CLASS	DR	DB CLASS	DB
K2	01000 1	EI	010011	101100	NDRS6	-	A'-C'-E'-K	0
K3	11000 1		110000	001111	PDRS6	+		-
D/K5	10100 x		101000	010111	PDRS6	+		-
D/K6	01100 x		011000	100111	PDRS6	+		-
D/K7	11100 x		111000	000111	NDRS6	-	ZB6	0
D/K9	10010 x		100100	011011	PDRS6	+		-
D/K12	00110 x		001100	110011	PDRS6	+		-
D/K17	10001 x		100010	011101	PDRS6	+		-
D/K18	01001 x		010010	101101	PDRS6	+		-
D/K20	00101 x		001010	110101	PDRS6	+		-
D/K23	11101 x		111010	000101	NDRS6	<b>-</b>		+
D/K24	00011 x		000110	111001	PDRS6	+		-
D/K27	11011 x		110110	001001	NDRS6	-		+
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	•		+



FIG. 25A





Pn23

Ndei



FIG. 26B cont.

